

Title (en)
Video decompression apparatus and method.

Title (de)
Bilddekompressionsvorrichtung und -verfahren.

Title (fr)
Appareil et méthode de décompression d'images.

Publication
EP 0594338 A3 19941012 (EN)

Application
EP 93308129 A 19931012

Priority
US 96512992 A 19921022

Abstract (en)
[origin: EP0594338A2] Disclosed is an apparatus and a method for decompressing video segments including a sequence of differential frames. Selected scaling of frame resolution and color depth upon playback on a playback platform is simplified by the process. A frame header may indicate the computational complexity of decompression of information for a frame, allowing selection of a scale for output resolution and another scale for color depth. Decompression proceeds by retrieving a frame from the compressed video stream in elementary units. Elementary units relate to non-overlapping, contiguous rectangular areas of the frame to be decompressed. An elementary unit is characterized by type, including an unchanged type, a homogeneous type, a pattern type and a predetermined pattern type. For a retrieved elementary unit of the unchanged type, an output pointer to a display buffer is moved by an elementary unit scaled by the output resolution scale. For a retrieved elementary unit of the homogeneous type, a color retrieved from the compressed video stream is applied to an area in the display buffer corresponding to an elementary unit scaled by the output resolution scale. For a retrieved elementary unit of the predetermined pattern type, a pattern from a table of patterns is retrieved using an index from the compressed video segment as an address. Two colors for the pattern are also retrieved and applied to the pattern. The result is written to an area in the display buffer corresponding to an elementary unit scaled by the output resolution scale. For a retrieved elementary unit of the pattern type, a pattern is retrieved from the compressed video stream. Two colors are retrieved and applied to the pattern and the result is written to an area in the display buffer corresponding to an elementary unit scaled by the output resolution scale. <IMAGE>

IPC 1-7
H04N 7/13

IPC 8 full level
H04N 7/32 (2006.01); **G06T 9/00** (2006.01); **H04N 1/41** (2006.01); **H04N 7/26** (2006.01); **H04N 7/36** (2006.01); **H04N 7/54** (2006.01); **H04N 11/04** (2006.01); **H04N 19/593** (2014.01); **H04N 19/94** (2014.01)

CPC (source: EP US)
G06T 9/008 (2013.01 - EP US); **H04N 7/54** (2013.01 - EP US); **H04N 19/00** (2013.01 - EP US); **H04N 19/503** (2014.11 - EP US); **H04N 19/593** (2014.11 - EP US); **H04N 19/94** (2014.11 - EP US); **H04N 19/20** (2014.11 - EP US); **H04N 19/39** (2014.11 - EP US)

Citation (search report)
• [Y] EP 0245027 A2 19871111 - GEN ELECTRIC CO PLC [GB]
• [PY] EP 0518464 A2 19921216 - TEKTRONIX INC [US]
• [A] US 3980809 A 19760914 - COOK WILLIAM CHRISTOPHER
• [A] US 4606069 A 19860812 - JOHNSEN OTTAR [US]
• [A] WO 8603922 A1 19860703 - VALTION TEKNILLINEN [FI]
• [A] D. CHEN AND A. BOVIK: "Visual pattern image coding", IEEE TRANSACTIONS ON COMMUNICATIONS, vol. 38, no. 12, December 1990 (1990-12-01), NEW YORK, pages 2137 - 2145, XP000203345
• [A] R. CRINON: "Picture compression based on two-dimensional adaptive sampling and adaptive quantization", OPTICAL ENGINEERING, vol. 30, no. 10, October 1991 (1991-10-01), BELLINGHAM, pages 1490 - 1496, XP000231884

Cited by
US5530477A; FR2796778A1; EP1606813A4; GB2318474A; GB2318474B; GB2283876B; US5815209A; GB2298546A; GB2298546B; US5831677A; US8411753B2; US6445312B1; US6195128B1; WO9516325A1; WO9530309A1; WO9708899A1; WO2004045217A1; WO2009034424A3

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0594338 A2 19940427; EP 0594338 A3 19941012; JP 2628618 B2 19970709; JP H06237455 A 19940823; US 5300949 A 19940405

DOCDB simple family (application)
EP 93308129 A 19931012; JP 26208393 A 19931020; US 96512992 A 19921022